1. Write a C program to simulate a Deterministic Finite Automata (DFA) for the given language representing strings that start with a and end with a
2. #include<stdio.h>
3. #include<string.h>
4. #define max 20
5. int main()
6. {
7. int trans\_table[4][2]={{1,3},{1,2},{1,2},{3,3}};
8. int final\_state=2,i;
9. int present\_state=0;
10. int next\_state=0;
11. int invalid=0;
12. char input\_string[max];
13. printf("Enter a string:");
14. scanf("%s",input\_string);
15. int l=strlen(input\_string);
16. for(i=0;i<l;i++)
17. {
18. if(input\_string[i]=='a')
19. next\_state=trans\_table[present\_state][0];
20. else if(input\_string[i]=='b')
21. next\_state=trans\_table[present\_state][1];
22. else
23. invalid=l;
24. present\_state=next\_state;
25. }
26. if(invalid==l)
27. {
28. printf("Invalid input");
29. }
30. else if(present\_state==final\_state)
31. printf("dontAccept\n");
32. else
33. printf("Accept\n");
34. }

Output:

